UNDERACHIEVING CHILDREN: AN ANALYSIS OF PSYCHOMETRIC CHARACTERISTICS OF EMOTIONALLY HANDICAPPED, LEARNING DISABLED, AND NON-REFERRED UNDERACHIEVING CHILDREN

By

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Abstract of Disseration Presented to the Graduate School of the University of Florida in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

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The differential diagnosis of children for placement in special education is the subject of considerable controversy. The appropriateness of classifying mildly handicapped children in order to serve their educational needs, as required by PL 94-142, has been questioned. The definition, delineation of characteristics, research practices, referral process, and effects of labeling are issues related to the differential diagnosis of mildly handicapped children. Researchers have reached different conclusions, thus, educators do not know whether psychometric and behavioral data from commonly used assessment batteries can differentiate among emotionally

handicapped, learning disabled, and unlabeled underachieving children. In this investigation psychometric data were collected on a sample of these children from Clay County, Florida. Results indicate mildly handicapping conditions can be operationally defined so that differential diagnosis is possible. Analysis of the data gives evidence that learning disabled, emotionally handicapped, and underachieving children do demonstrate significant differences on psychometric and behavioral measures.

The learning disabled children had significantly higher verbal and full scale IQ scores than the emotionally handicapped group, and demonstrated a significantly greater variance between achievement and ability than the emotionally handicapped and underachieving groups. The underachievers scored significantly higher in reading than did the other children. Of particular interest was the similarity of the underachievers to the emotionally handicapped group on measures of emotional status. Both these groups showed a significantly greater number of emotional indicators on the Bender-Gestalt than did the learning disabled children. Behavior ratings by teachers revealed that the emotionally handicapped children had the most behavioral problems. The underachieving group was rated the same as the emotionally handicapped group on three of six categories of behavioral problems. The learning disabled children were rated as having few

behavioral problems. There were no differences between the groups in visual-motor integration, or in teachers' rating of students' process or memory problems. Implications of the results are discussed.

CHAPTER I

INTRODUCTION

Historical Perspective

Special education originally began as a means to serve children unable to function in regular classrooms. These children generally had physical, mental, or emotional problems of significant severity. However, in the 1950s and 1960s there was a rapid expansion of programs designed to meet the needs of narrowly defined categories of children with mild problems. This led to the practice of addressing the problems of low achievement and mild social/emotional difficulties by categorizing children, and placing them in "set aside" programs (Ysseldyke, Reynolds, & Weinberg, 1984). In the 1970's questions were raised as to the educational values (Lilly, 1977) and social desirability of segregrated programs (Trippe & Mathey, 1982). A growing number of educators were advocating a movement toward non-categorical special education; however, these efforts were slowed by a series of court decisions that led to the enactment of PL 94-142, The Education for All Handicapped Children Act (Lilly, 1977).

The passage of PL 94-142 guaranteed a free and appropriate education to all children, but required the labeling of pupils as handicapped to secure this right (Trippe & Mathey, 1982). Thus, as discussed by Algozzine and Korinek (1985), 11% of the school-age population has been classified as handicapped in order to receive services. More than 90% of the classified pupils belong to one of four categories for the mildly handicapped; speech impaired, learning disabled, mentally retarded, and emotionally disturbed (Algozzine & Korinek, 1985; Trippe & Mathey, 1982). Children are placed in these high incidence categories primarily by using psychometric results rather than medical/physical qualifications.

Definite trends have evolved in the classification of children since the passage of PL 94-142. Algozzine and Korinek (1985) presented data which indicated wide variability among school districts, but which consistently gave evidence of increases in the numbers of students classified as learning disabled, while the number of students classified as mentally retarded and speech impaired decreased. The numbers of students categorized as emotionally handicapped appeared to be remaining constant.

Current Issues

The appropriateness of continuing to classify mildly handicapped children in order to serve their educational needs continues to receive attention in the literature (Astman, 1984; Stainback & Stainback, 1984; Trippe & Mathey, 1982; Ysseldyke, 1983; Ysseldyke & Algozzine, 1982; Ysseldyke et al., 1984). As Trippe and Mathey (1982) stated, "there is no question that, for the extremes, accommodation in the regular classroom would be most difficult or impossible "(p.4). However, 90% of the children who receive special education are there because their disabilities are related to school expectations of learning and behavior.

This practice can lead to the logical fallacy of affirming the consequence. Put another way, the reasoning follows this logic as presented by Ysseldyke and Algozzine (1979): "If the statement (A) is true (the child is learning disabled), then a certain result will be observed (B) (the child will reverse letters). Upon assessment, B is observed, it is then concluded that A is true" (p.4).

The logic is not faulty. The problem lies in the fact that the first statement is not specific and universal to any category of mildly handicapped children. Speaking of learning disabled children Ysseldyke and Algozzine (1979) stated, " That is, it is not specified

that the characteristics appear in only and in all learning disabled children; there are clearly other reasons for the presence of the characteristics in question" (p.4). The other reasons may be that the child is mentally retarded, emotionally handicapped, deprived, ill, or experiencing transitory emotional stress. This line of logic continues to be used because it serves to justify the subjectivity that enters the decision-making process and is sometimes correct.

Studies have shown that the most important decision in the process of labeling a child is referral (Perlmutter & Parus, 1983; Ysseldyke & Algozzine, 1979, 1983). Referrals are usually generated by the classroom teacher who, in effect, controls which children are evaluated for special programs. A summary of characteristics that have been shown to influence referral and subsequent placement decisions can be found in Ysseldyke and Algozzine (1979). Trippe and Mathey (1982) also discussed characteristics that result in referrals to classes for the learning disabled, emotionally handicapped, or mentally retarded. The bias caused by a child's behavioral characteristics does not end with referral, but is also in evidence at the level of assessment and in the making of placement decisions (Algozzine, Ysseldyke, Christenson, & Thurlow, 1983;

Frame, Clarizio, Porter, & Vensonhaler, 1982; Knoff, 1984; Potter, Ysseldyke, Regan, & Algozzine, 1983).

The net effect of the present system is to blame the child for the failure of the school to accommodate her needs. The child is labeled for organizational, political, and economic reasons. As Ysseldyke and Algozzine (1982) pointed out, the labels of mentally retarded, learning disabled, and emotionally disturbed are used to identify children when " we are not certain what these terms mean and what those conditions are, and we have no idea of what to do (with any degree of validity) when we find them" (p. 234).

The Executive Board/Delegate Assembly of the National Association of School Psychologists (NASP) passed a position statement advocating appropriate educational services for all children (Advocacy, 1985). The paper addressed the multiple problems of access, including the focus on labels for placement. Problems seen as arising from the present classification system include (a) labeling children who are low achievers as "handicapped" to obtain needed services, (b) using labels that are irrelevant to instruction, (c) applying arbitrarily defined labels which may become accepted as "real" and reduce meaningful intervention, and (d) decreasing the willingness of regular education teachers to modify curricula to meet the needs of all children.

The above statement was followed by a five-year plan presenting priority areas for NASP (NASP, 1985). The first priority discussed was the development of better delivery systems to focus on instructional needs without unnecessary assessment and labeling.

Two classifications are of particular concern: learning disabled and emotionally handicapped. Considerable conceptual and definitional confusion is apparent in the two fields (Adelman & Taylor, 1983; Apter & Conoley, 1984; Ysseldyke, Algozzine, Richey, & Graden, 1982). Furthermore, substantial overlap between the criteria for identification and the characteristics of children in both categorities appears to exist (Apter & Conoley, 1984; Jacobs, 1984; Trippe & Mathey, 1982). These two factors have led to problems of differential diagnosis (Stainback & Stainback, 1984; Trippe & Mathey, 1982; Ysseldyke & Algozzine, 1982; Ysseldyke et al., 1984).

Authorities in the field of learning disabilities have questioned the validity of learning disability as a special education category (Algozzine & Ysseldyke, 1982) by showing that learning disabled students cannot be differentiated from underachievers (Ysseldyke, Algozzine, Shinn, & McGue, 1982). Sherry (1982) studied learning disabled, emotionally handicapped, and educable mentally retarded students and suggested that they did not differ in achievement, self-concept, and visual-motor measures,

noting also that limited empirical research has been reported in the field.

Problems in research also confound the field (Adelman & Taylor, 1983; Apter & Conoley, 1984; Lakin, 1982; Ysseldyke & Algozzine, 1982). A set of guidelines to assist researchers when describing learning disabled samples was developed by the Council for Learning Disabilities Research Committee (1984). It remains to be seen how these guidelines will be followed. Similiar guidelines are also needed for researchers who study samples of emotionally handicapped students.

Beyond the issues of definition, conceptualization, and research, a need exists to show whether different teaching methods have been proven exclusively effective with any group of students (Apter & Conoley, 1984; Jacobs, 1984; Lerner, 1981; Morsink, 1985; Stainback & Stainback, 1984; Ysseldyke & Algozzine, 1982; Ysseldyke, Thurlow, Graden, Wesson, Algozzine, & Deno, 1979). Also, a need exists to demonstrate whether different teacher competencies are needed to teach these children (Apter, 1984; Lakin, 1982; Morsink, 1985; Stainback & Stainback, 1984).

Knowledge about professional practices in research and intervention will remain unclear until issues of identification and definition are resolved. If there is to be a research-based justification for the endeavor of categorical education, researchers will need to be able to

rely on a system of differential diagnosis which allows for consistent identification of children as learning disabled, emotionally handicapped, or normal but underachieving. As stated earlier, the categories of learning disabled and emotionally handicapped are classifications based primarily on psychometric results (Algozzine & Korinek, 1985) and school-defined failure to learn or behave as expected (Tripp & Mathey, 1982). This study focused on the psychometric data and behavioral observations used to identify and subsequently label children as learning disabled, emotionally handicapped, or underachievers.

Theoretical Framework

The theories concerning the nature of cognitive abilities, thinking skills, and moral development are critical to the understanding of learning disabilities, emotional handicaps, and underachievement. Two interpretations of cognitive abilities, maturational theories and theories of components of mental functioning, are often employed to interpret learning problems (Lerner, 1981). Psychodynamic, psychoeducational, behavior modification, and ecological theories have been applied to the understanding of emotional handicaps (Kirk & Gallagher, 1979). Moreover, reductionistic models (psychological-process, behavioral, and cognitive-strategy) have been employed to teach children with learning problems.

In contrast, the holistic method of viewing persons suggests that all variables are seen and treated within the context of all the interactions that form a particular experience (Poplin, 1984). Holism challenges many of our present assumptions about education. Other models reduce learning to segments of a relatively small set of experience, and have also narrowed our concept of intelligence. The holistic model challenges us to view the child from his perspective; to grow with the child. Learning and emotional problems are explained as interactions between the school, the family, the individual, and society at large.

Too often special educators have failed to look at the school setting, to the context within which learning problems take on their meaning (Astman, 1984). Learning disabilities, emotional handicaps, and underachievement do not exist of themselves. They exist because the child is judged against a standard or norm (Astman, 1984; Trippe & Mathey, 1982).

Our decisions about a child's educational needs are derived partly from the way we perceive children. We fail to recognize that children are accomplished learners prior to entering school. Upon their entrance to school we restrain the very qualities that helped them learn about the world (Neal, 1984). Erikson (1980) provided us with a

framework within which to understand the moral and cognitive development of the human organism.

According to Erikson (1980) the healthy personality develops as the person passes through an identifiable series of psychosocial stages as listed in Table 1.

Table 1

Erikson's Psychosocial Stages of Development

Stage	Psy. Crisis	Qualities of Strength	Psy. Modalities	Age
I	Trust vs. mistrust	Hope: belief that wishes can be fulfilled.	To get To give	0-1
II	Autonomy vs. shame or doubt	Will: determination to exercise free choice and self restraint.	To hold on To let go	2-3
III	Initiative vs. guilt	Purpose: to envisage and pursue valued goals.	To "make like" To make	3-6
IV	Industry vs. inferiority	Competence: free use of skill and intell-igence in completing tasks.	To make things	7-12
V	Identity vs. identity diffusion	Fidelity: substain freely pledged loyalties despite contradicting value systems	To be oneself To share being oneself	12-18

Note. Adapted from Thomas, 1985, pp. 238-239; 246-247.

Erikson proposed that these stages are determined genetically and occur regardless of culture. The personality characteristics that the child comes to display depend on the way he interacts with the social

institutions within his environment. Growing up is the achievement of ego identity which first involves knowing and accepting one's self, and secondly, accepting the group culture. The child who receives healthy nurturance will develop the human virtues of hope, will, purpose, and competence. The teen years will see the growth of fidelity. Love, care, and wisdom are considered the outcomes of maturity.

As illustrated in Table 1, each stage of development is characterized by psychosocial modalities that faciliate the development of positive values. Unsolved psychosocial crisis can result in unhealthy emotional adjustment. According to Erikson (1980) influences at each stage are permanent but not unalterable. Earlier negative experiences may not be completely undone, but can be ameliorated by later positive experience. Thus, the social and educational environment play a significant part in the development of emotionally healthy persons who are able to strive toward their potential.

Perhaps, viewing children through Erikson's theory will also temper how we view labeling children and placing them in set aside programs. Biehler (1978) discussed educational implications for Erikson's psychosocial stages beginning with preschoolers and going through secondary school years, as listed in Table 2. The implications of

Eirkson's theory when applied to teaching fit within a holistic view of education.

Table 2

Educational Implications of Erikson's Stage Theory

Educational level	Implications
Preschool	Give freedom with guidance, Allow the child to do things but reduce the possibility that weakness will be exposed, or that she will develop doubts about her capabilities.
Kindergarten	Allow self-initiated activity. Allow tasks for the sake of being active. Avoid comparisons of relative ability. Urge child to improve performance.
Elementary	Play down comparisons. Reduce competion against peers. Provide tasks that allow the child to meet success. Stress individual mastery. Allow pupil to proceed at own rate. Give remedial instruction as soon as difficulties are encountered.
Secondary	Develop identity and acceptance of one's body. Develop inner assuredness. Urge formulation of goals. Recognize possible psychosocial moratorium.

Possibly within Eirkson's framework the holistic educator can respect the child's capacities, and trust the child to use his own formative powers. Educators, by promoting positive qualities and providing opportunities for children to use appropriate psychosocial models, can make a difference in the child's life. Furthermore, reviewing the implications of Erikson's theory to

education underlines the need to accept children as they are and then to provide an environment that stimulates positive growth.

Problem Statement

At the present time there are no universally accepted criteria to diagnose children as learning disabled or emotionally handicapped. Thus, the basic problem is that educators really do not know if currently used psychometric data from commonly used batteries can differentiate among learning disabled, emotionally handicapped, and unlabled underachieving children. The placement of children into special education programs for the mildly handicapped is capricious at best (Algozzine & Ysseldyke, 1983). Placement is often dependent on referral, and referral is often the result of biased selection by teachers (Ysseldyke & Algozzine, 1983).

Studies undertaken by Ysseldyke, Algozzine, Shinn, and McGue (1982) have shown that learning disabled children cannot be differentiated from underachievers. Sherry (1982) found that although learning disabled, emotionally handicapped, and mentally retarded children did not differ in intellectual, achievement, and visual-motor measures, at-risk (Chapter 1 students) and normal children in regular classes generally yielded higher scores on all psychometric data. Behavioral data did not show any significant differences among the groups in

Sherry's study (1982). As he discussed, limited empirical research exists in the field.

Needs Statement

If educators are to continue serving mildly handicapped children in categorical special education classes we need to be able to differentiate among the various categories (Trippe & Mathey, 1982). If indeed, psychometric data do differentiate between learning disabled and emotionally handicapped children, educators have valid grounds for continuing the practice of collecting such data. If learning disabled and/or emotionally handicapped children are found to be statistically different from unreferred underachievers, present assessment measures may be valid. On the other hand, if data show that unreferred underachievers are statistically like learning disabled and/or emotionally handicapped children, new methods of referral need to be devised so that all children who deserve special education can receive services.

Another possibility exists. It may be that all three classifications are statistically alike. If such is the case a number of issues become important. Better means of differential diagnosis need to be researched. School psyhologists should be trained to use combinations of assessment tools that provide adequate information for placement. Criteria for placement may need to be

revisited. The practice of categorical placement may require further study, and changes in teacher training and certification may be necessary.

Purpose

The purpose of this investigation was to provide psychometric data regarding children selected from three special categories of placement. The study was designed to show if significant differences existed among the mean scores of the groups of children for each measure; intelligence, achievement, visual-motor integration, behavior, and emotional indicators. Furthermore, this study was designed to determine the validity of continuing to use present referral and evaluation methods as the determining factors in the placement of children in categorical programs for the mildly handicapped.

Research Questions

1. Can emotionally handicapped, learning disabled, and underachieving children be differentiated based on reading or math scores obtained from the Wide Range Achievement Test or Woodcock Johnson Tests of Achievement?
2. Can emotionally handicapped, learning disabled, and underachieving children be differentiated based on verbal, performance, or full scale scores from the Wechsler Intelligence Scale for Children-Revised?

3. Can emotionally handicapped, learning disabled, and underachieving children be differentiated based on age equivalent scores or number of emotional indicators from the Bender-Gestalt?

4. Can emotionally handicapped, learning disabled, and underachieving children be differentiated based on a teacher-completed behavioral checklist?

5. Can emotionally handicapped, learning disabled, and underachieving children be differentiated based on the amount of variance between their Wechsler Intelligence Scale for Children-Revised scores and their achievement scores?

Definition of Terms

Achievement: The ability to do math problems or read as measured by the Wide Range Achievement Test (WRAT) or Woodcock Johnson Tests of Achievement (WJTA).

Category/classification: Term used to identify a specific type of handicapped child. The field of special education includes a collection of categories of special children (Lerner,1981).

Chapter I: A federally funded program designed to serve underachieving children. A school becomes eligible for funds based on the number of children enrolled who are eligible to receive free or reduced cost

or reduced cost lunches. Any child in the school who is identified as an underachiever may be in the program.

Emotionally handicapped/emotionally disturbed/behavior disordered: The term refers to children exhibiting one or more of the following characteristics over a long period of time and to a marked degree, which adversely affects educational performance: (a) an inability to learn which cannot be explained by intellectual, sensory, or health factors; (b) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers; (c) inappropriate types of behavior or feelings under normal circumstances; (d) a general pervasive mood of unhappiness or depression; or (e) a tendency to develop physical symptoms or fears associated with personal or school problems, The term includes children who are schizophrenic. The term does not include children who are socially maladjusted, unless it is determined that they are seriously emotionally disturbed. (Kirk & Gallagher, 1979)

Emotional indicators: Signs associated with certain emotional states as measured by the Bender-Gestalt using the Koppitz scoring system. Koppitz (1963a, b) considers the following phenomenon on the test to be indicative of emotional disturbance in children:

confused order, wavy line, dashes for circles, progressive increases in size, large size, small size, fine line, overwork, second attempt, and expansion.

Handicapped child/exceptional child: The child who deviates from the average or normal child in mental characteristics, in sensory abilities, in neuromotor or physical characteristics, in social behavior, in communication abilities, or in multiple handicaps. Such deviation must be of such an extent that the child requires a modification of school practices, or special education services, to develop to maximum capacity (Kirk & Gallagher, 1979, p. 3).

Intelligence: The capacity to use those abilities defined as intelligence by the Wechsler Intelligence Scale-Revised (WISC-R).

Learning Disabilities: There is not a universally accepted definition of learning disabilities. The most widely used operational definition is that which is part of PL 94-142 and follows:

> The child does not achieve commensurate with his or her age and ability levels in one or more of seven specific areas when provided with learning experiences appropriate for the child's age and ability levels.
>
> The team finds that a child has a severe discrepancy between achievement and intellectual ability in one or more of the following areas:
>
> a. Oral expression
> b. Listening comprehension
> c. Written expression
> d. Basic reading skill
> e. Reading comprehension
> f. Mathematics calculation
> g. Mathematics reasoning
>
> The learning disabilities regulations also specify that a team may not identify a child as having a specific learning dis-

> ability if the severe discrepancy between ability and achievement is primarily the result of (1) visual, hearing, or motor handicaps, (2) mental retardation, (3) emotional disturbance, or (4) environmental, cultural, or economic disadvantage. (Lerner, 1981, p.7)

Team: The team consists of the following persons: the local educational agency representive, the school psychologist, a regular education teacher, a special education teacher, and the parents/guardians of the child. Social workers and medical personal may be called in to join the team.

Underachiever: A child who scores in the 30th percentile or less on the Stanford Tests of Achievement in reading and/or math, who has not been referred or did not previously meet criteria for special education and is not receiving services.

Visual-motor intregration: The ability to coordinate vision with the movements of the body or parts of the body (Lerner, 1981) as measured by the Bender-Gestalt using Koppitz's scoring system.

Overview

Chapter II presents a review of the literature supporting the need, purpose, and instruments discussed in this chapter. Chapter III discusses the methodology. In chapter IV the analysis of data and an evaluation of information are presented. The final chapter contains a summary, limitations, conclusions, and recommendations.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

A number of issues are important to the study of the psychometric characteristics of underachieving children. Conceptual and definitional confusion; criteria and characteristic overlap; educational practice; bias in referral, assessment, and placement; and problems with inadequate research are points of current debate. Current literature also has highlighted how these issues relate to the appropriateness of categorical education and prevalent professional practice. A review of the literature will help illustrate the need and purpose of this study.

Definitions

The legal definitions of learning disabilities and emotional handicaps were established by the passage of PL 94-142. These definitions can be found in Chapter I (Definitions of Terms, pp. 16 - 18). However, a review of the literature indicates that there is not professional consensus as to what constitutes a learning disability (Association for Children with Learning Disabilities,

1985; Adelman & Taylor, 1983; Algozzine & Ysseldyke, 1983; Hammill, Leigh, McNutt, & Larsen, 1981; Lilly, 1977; Ysseldyke & Algozzine, 1982, 1983; Ysseldyke, Algozzine, Richey, & Graden, 1982). The same is true for the field of emotional handicaps, as a review by Apter and Conoley (1984, pp. 12-37) illustrated. The definitions of these categories are difficult to pinpoint and yet are central to developing service delivery models; shaping legislative, administrative, and advocacy decisions; determining estimates for prevalence; and research (Sherry, 1982; Trippe & Mathey, 1982).

Definitions of Learning Disabilities

The term learning disabilities became popular after its introduction in 1963 by Samuel Kirk (Lerner, 1981). However, one of the most frequently and consistently cited criticisms of the field of learning disabilities has been the lack of consensus among professionals on a definition of the term. Lilly (1977) summarized studies that described 22 separate terms used as synonyms for learning disability, 38 definitions of learning disabilities, and the failure to be able to differentiate children labeled learning disabled from those who were not so labled.

Mercer, Hughes, & Mercer (1985) surveyed the directors of special education in the 50 state departments of education to accertain their definition of learning

disability, identification criteria, and operationalization procedures. Their study revealed that 72% of the states use a learning disabilities definition based on the 1977 Federal Register definition, 24% use a different definition, and 4% do not use any definition.

In 1981 the National Joint Committee for Learning Disabilities (Leigh, 1983) met to develop a new definition. They agreed that "a definition was basically a theoretical statement specifying the delimiting characteristics of conditions called learning disabilities" (Hammill et al., 1981, p.338). Within this frame of reference they developed a definition that contains the following concepts:

1. Learning disabilities is a global term under which a variety of disorders can be grouped.
2. Learning disabilities refers to a heterogeneous group. That is, the disorders grouped under learning disabilities are specific and different in kind. It is implied that specific causes of the disorders may be many and dissimliar.
3. Learning disabilities handicap and seriously limit the performance of some key ability; the acquision and use of listening, speaking, reading, writing, reasoning, or math skills.

4. The source of the disorder is to be found within the person and is presumed to be caused by neurological dysfunction.

5. Learning disabilities occur among all kinds of people but are not the result of other handicapping conditions.

This theoretical model has been accepted by the Council of Learning Disabilities, the International Reading Association, the Division for Children with Communication Disorders, The Orton Dyslexia Society, and the American Speech-Language-Hearing Association. It was not accepted by the Association for Children and Adults with Learning Disabilities (Hammill et al., 1981). The results of Mercer's study (1985) suggested that educators are not adopting this newer definition.

The Association for Children with Learning Disabilities' Board of Directors (ACLD, 1985) adopted a definition of the condition, Specific Learning Disabilities, on September 22, 1984, which follows:

> Specific Learning Disabilities is a chronic condition of presumed neurological origin which selectively interferes with the development, integration, and/or demonstration of verbal and/or non-verbal abilities.
>
> Specific Learning Disabilities exists as a distinct handicapping condition in the presence of average to superior intelligence, adequate sensory and motor systems, and adequate learning opportunities. The condition varies in its manifestions and in degree of severity. Throughout life the condition can affect self-esteem, education,

> vocation, socialization, and/or daily living activities. (p.1)

The task force took the approach of defining learning disabilities within a broad, lifetime definition in order to "transcend present, debated definitions" (ACLD, 1985, p.1). The impact of their efforts is yet to be felt.

Trippe and Mathey (1982) made an interesting point; can anyone determine that the inability of a child to learn is not associated with emotional disturbance? They consider it pointless to ask if a particular child is really learning disabled or emotionally handicapped and to expect an accurate, reliable response based on available clinical procedures and evaluation. Referring to the definition of learning disabilities given in PL 94-142 they noted that in order to be considered learning disabled, a child's learning problems must not be emotionally based. However, they proceeded to say

> Our view is that we are not so skilled at ruling out emotional factors as we are at simply deciding that child's problems are not due to emotional problems. Another way of saying this is that if a child is having learning difficulties but seems bright, is pleasant, adaptable, presentable, likeable, and isn't troublesome, then the tendency would be to favor his or her being learning disabled rather than emotionally impaired. Or if he or she is troublesome and still likeable, then frustration over learning may be used to justify the troublesome behavior and still favor seeing him or her as learning disabled. (Trippe & Mathey, 1982, p.6)

Definitions of Emotionally Handicapped

Apter and Conoley (1984) provided a number of common definitions used to describe emotionally handicapped children. They also discussed several problems that educators face because of the array of definitions and definitional issues. Apter and Conoley (1984) pointed out that a child may be regarded as mentally ill by a psychiatrist, emotionally disturbed by a psychologist, and behavior disordered by an educator.

The definition of emotionally handicapped that is part of PL 94-142 (Chapter 1, Definition of Terms, p.16) was based on a definition developed by Bower and Lambert in 1971 which follows:

> Emotional disturbance can be inferred from individual behavior which is limited, inflexible, restricted, and endures over time including:
>
> 1. An inability to learn which cannot be adquately explained by intellectual, sensory, neurophysiological, or general health factors;
> 2. an inability to build or maintain satisfactory interpersonal relationships with peers and teachers;
> 3. inappropriate or immature types of behavior or feelings under normal conditions;
> 4. a general pervasive mood of unhappiness or depression;
> 5. a tendency to develop physical symptoms, such as, speech problems, pains, or fears, associated with personal or school problems. (Bower & Lambert, 1980, p.99)

This definition has been used for over 20 years to identify mildly disturbed children. However, PL 94-142

now uses this same definition for "seriously" disturbed children. Grosenick and Huntze (1980) identified as a concern this use of the word "seriously" and the lack of clarity of what was meant by the term. Additionally, the exclusion of "socially maladjusted" children while including children unable to relate satisfactorily with peers has raised unanswered questions (Kauffman, 1980).

Other issues that have delayed the universal acceptance of a definition of emotional handicapped are based on theorical perspectives. Arguments for the label emotional disturbance versus behavior disorder can be found (Hewett & Taylor, 1980). Newcomer (1980) reviewed the deviance versus disability perspectives. Apter and Conoley (1984) favored the ecological perspective, arguing that other views made it easy to label the child while ignoring needed changes in the ecological systems surrounding the child.

Prevalence

Estimates of the prevalence of the number of children who are mildly handicapped vary considerably. Children who are labeled learning disabled or emotionally handicapped have many traits in common. Moreover, for a particular child, it is often difficult to determine what constitutes the primary problem. Long, Morse, and Newman (1980) reported, "it is our experience that approximately 40 percent of the pupils labeled emotionally handicapped

have underlying learning disabilities" (p. 280). These variables, as well as the lack of agreement concerning definitions and criteria for placement, influence prevalence figures. Table 3 illustrates the wide variance of prevalence estimates for learning disabilities, ranging from the very conservative estimate made by the National Advisory Committee of Handicapped Children to Meier's rather high estimate.

Table 3

Prevalence of Learning Disabilities

Study	Estimated Percentage
National Advisory Committee on Handicapped Children (1968)	1-3%
Kass & Myklebust (1969)	3-5%
Meier (1971)	15%
Bryant (1972)	3-28%
Kirk & Elkins (1975)	2.5%

Source of data: Wallace & McLoughlin, 1979, p.13; Lerner, 1981, p.16.

It very difficult to estimate the numbers of emotionally handicapped children being served at any one time, according to Apter and Conoley (1984). Caution must be taken concerning the ambiguity in definition and criteria. Estimates of the number of disturbed children range from 2% to 30% (much like the figures for learning disabilities). Translated into numbers of children that means between one million and 15 million children. Using the conservative figure of 2%, Apter and Conley reported that 1,026,340 children need special help because of their

emotional status. Yet only 0.5% of children in school receive service for emotional disturbance (Kirk & Gallagher, 1979: Lerner, 1981; Long et al., 1980).

Algozinne and Korinek (1985) studied the numbers of different types of handicapped students served since the passage of PL 94-142. Of the total number of handicapped students in the United States, the average percentages of students served in classes for the learning disabled and emotionally handicapped for the years 1978-1982 are presented in Table 4.

Table 4

Average Percentage of Students Served in Classes for Learning Disabled and Emotionally Handicapped

	School Years				
Category	1978	1979	1980	1981	1982
Learning Disabled	28.77	32.49	35.60	38.16	40.4
Emotionally Handicapped	6.85	7.55	7.38	7.63	7.68

Data from Algozzine & Korinek, 1985.

Analysis of the data presented by Algozzine and Korinek (1985) and illustrated in Table 4 reveals that the number of learning disabled students served has increased approximately 3% per year since 1978 while the number of emotionally handicapped has remained fairly constant. Discussing the possible reasons for this, the authors suggest "ineffective decision making, and

educational practice characterized by whim and chance" (p.393).

Another way of viewing the problem of determining learning disabilities and emotionally handicapped prevalence was proposed by Adelman and Taylor (1983). They hypothesized that instead of two separate populations " the diagnosed learning disabled and emotionally handicapped populations should be seen as overlappping and as consisting of a continuum encompassing three major subgroups of youngsters with learning or behavior problems, or both" (p. 42). Discussing prevalence they suggested that the labels should apply only to severely handicapped children and that this would mean approximately 1% of the school-age population.

In summary, current prevalence estimates of both learning disabled and emotionally handicapped children fluctuate markedly. Agreement on prevalence figures will not be reached until agreement regarding concept and definition is achieved. Then we still have to contend with overlap and misidentification. At the present time it is difficult to determine the actual number of handicapped children within specific categories. Estimates are higher than actual rates currently available (Ysseldyke, Algozzine, & Richey, 1982).

Characteristics

Just as there is not one definition of learning disabilities or emotional handicaps that satisfies all involved parties, neither is there a list of characteristics that is exclusive to either group of these children. The nature of the children who are identified and labeled according to classic special education categories is as variable as the system itself (Furlong & Yanagida, 1985; Mercer et al., 1985; Morrison, MacMillan, & Kavale, 1985). As Trippe and Mathey (1982) discussed, 90% of the children in special education are considered disabled because their learning and/or behavior does not match school expections. Furthermore, to add to the confusion most children manifest some of these characteristics or behaviors to some degree at some time (Adelman & Taylor, 1983).

Learning Disabled Children

Lerner (1981) wrote that learning disabled school-age children are four to six times more likely to be male than female. However, learning disabled children can be found in towns and cities across the nation, among every socioeconomic level, and in large and small school districts (Cruichshank, 1981; Lerner, 1981). Among the characteristics said to be related to learning disabilities are hyperactivity or selective attention deficits,

perceptual-motor impairment, general coordination deficits, disorders of memory and thinking, speech and language difficulties, emotional instability, impulsivity, low frustration tolerance, mood fluctuations, motivational abnormalities, vague free-floating anxiety, performance instability, and a history of academic failure (Adelman & Taylor, 1983; Clements, 1966; Fleisher, Goodak, & Julin, 1984; Kaulger & Kolson, 1978; Lerner, 1981; Meier, 1971; Sattler, 1982). A minority of learning disabled children have specific neurologic disorders. Most have no abnormalities that can be medically diagnosed (Kandt, 1984).

Jacobs (1984) discussed the characteristics of learning disabled children from a cognitive perspective. She viewed learning disabled children as passive learners and noted that this lack of involvement is a major contributor to the disability. Continuing, Jacobs suggested that lack of hard work, difficulty following directions, and deficiencies in perceptual, memory, attention, and control processes characterize learning disabled children.

Smith (1980) composed a list of typical problems of learning disabled children. The list consists of 70 items, 10 each in seven areas including reading, language, spelling, handwriting, arithmetic, thinking, and school problems. The list was formulated to help teachers of

emotionally handicapped children recognize learning disabilities among the children they teach.

Looking at learning disabled children and emotionally handicapped children, Fuchs, Fuchs, and Deno (1985) studied the performance instability of the two groups. The results of their study indicated no difference between the groups. They questioned why performance instability is believed to be a unique descriptor of learning disabled children and reported that their findings were consistent "with a growing body of empirical evidence that has failed to find reliable, distinctive characteristics of learning disabled pupils" (p.25).

Emotionally Handicapped Children

Children in classes for the emotionally handicapped appear to have problems in three areas; conduct, inadequacy/immaturity, and personality (Quay, Morse, & Cutler, 1966). Examined in another manner, the characteristics of emotionally handicapped children can be defined as belonging to one of three patterns; unsocialized aggressive, socialized aggressive, or overinhibited (Kirk, 1979; Sattler, 1982). The emotionally handicapped child is characterized as having poor impulse control, a low self-image, poorly developed modulation of emotion, special learning disabilities, relationship

deficits, inability to delay gratification, suspiciousness, restlessness, lack of spontaneity, irritability, and/or apathy (Apter & Conoley, 1984; Roots, 1979).

Comparison

Examining the differences between emotionally handicapped and learning disabled children, Roots (1979) suggested that the academic deficiencies of emotionally handicapped children are the result of inappropriate behavior, whereas learning disabled children are underachievers as the result of deficits in psychological processes. Moreover, emotionally handicapped children do not seem to respond to traditional classroom controls, whereas learning disabled children do. According to Roots, the emotionally handicapped child showed consistent test profiles in contrast to sporadic performance on tests by learning disabled children. Additionally, the emotionally handicapped child displayed great difficulty with interpersonal relationships and consistently behaved inappropriately.

Criteria For Identification

No one set of criteria exists for placing children in programs for learning disabilities or emotional handicaps. A comprehensive survey (Mercer et al., 1985) revealed the variance in how states operationalize the criteria for learning disabilities. This is not surprising when reflecting on the lack of professional

agreement on a definition for either condition and overlap of behavioral characteristics between the groups. Studies in Colorado (Smith, 1982), Hawaii (Furlong & Yanagida, 1985), Iowa (Trippe & Mathey, 1982), Michigan (Perlmutter & Parus, 1983), Minnesota (Algozzine & Ysseldyke, 1982, 1983), and North Carolinia (Sherry, 1982) have each demonstrated lack of consistency within and across districts and/or lack of difference among categories.

The criteria for entry into learning disabilities programs in the state of Florida include (a) average, near average, or above average ability intellectually; (b) a significant discrepancy between achievement and ability; (c) sensory integrity, but lack of ability to receive, organize, share, or remember stimuli efficiently; (d) not physically handicapped, culturally deprived, or emotionally disordered; and (e) a combination of conferences, observations, educational alternatives, intelligence, achievement, and process testing prior to consideration of placement (Work & Whitehurst, 1983).

Lakin (1982) observed that no standard existed for identifying emotionally handicapped children. The criteria for placement differed according to theoretical view. The Joint Commission for the Mental Health of Children and Youth (Long et al., 1980) has stated that an emotionally handicapped child shall meet the following

criteria. They shall (a) have an impairment of age-relevant capacity to perceive the external environment realistically,(b) possess inadequate impulse control, (c) experience a lack of rewarding interpersonal relationships, and (d) demonstrate a failure to achieve academically.

State of Florida criteria follow the definition cited above with conferences, observations, educational alternatives, social histories, and intellectual, academic, personality/adjustment measures being part of the total evaluation process.

Identification Problems

Referral

The identification of children as learning disabled or emotionally handicapped begins with the initial referral by the classroom teacher which Ysseldyke and Algozzine (1983) asserted is the most important decision in the process of placement. Their research indicated that of children referred, 92% were evaluated, and of those 78% were placed in special education. Thus, when educators are faced with the failure of a child to learn, they view the problem as a learning disability or behavior problem and the teacher is exonerated (Trippe & Mathey, 1982).

Bias

Bias is viewed as a reoccurring problem before, during, and after assessment. A number of studies

(Adelman & Taylor, 1983; Knoff, 1984; Trippe & Mathey, 1982; Ysseldyke, 1983; Ysseldyke & Algozzine, 1979, 1983) have questioned the validity of current procedures for placing children in special education. Teachers refer children who distrub them. As summarized by Ysseldyke and Algozzine (1979), the sex, appearance, race, troublesomeness, and perceived ability of the child will often determine who is referred.

Assessment is undertaken to provide the information needed to determine eligibility. To be fair the assessment should be carried out by qualified personnal using technically adequate tests in a process free of cultural and ethnic bias. Bennett (1983) stated that this is not common current practice. Davis and Shepard (1983) noted that of 19 most frequently used tests only four are acceptable to the American Psychological Association. Furthermore, professionals are generally not familiar with the technical properties of the tests they use.

At team meetings to determine placement a conglomerate of information is presented. Scores on formal tests of intelligence and achievement are required by PL 94-142 as are informal data including anecdotal records and social histories. However, the team tends to endorse the problems observed by the teacher. The more information presented the more likely the child is to be

placed. Little relationship exists between type of data and placement (Ysseldyke, Algozzine, Rickey, & Granden, 1982). Knoff (1984) reported that multidisciplinary teams generally place children more appropriately than individual team members, but school psychologists most influence assessment decisions.

Astman (1984) explored the "roots and effects of the identity crisis in special education" (p. 299). He offered a cursory review of special education, particulary the field of learning disabilities. Astman (1984) asserted that rarely have educators considered the context within which learning disabilities take on their meaning, failing to consider that we can only observe handicaps against a standard. Subsequently educators attempt to "rescue" children who do not meet normative standards without questioning whether the norms are appropriate to the child.

Labeling is another form of bias that occurs as a result of identification. Labels affect the perceptions and behavior of the child and impact other's perception and actions toward the child (Lerner, 1981). Stainback and Stainback (1985) discussed labels as one more way children are asked to fit into the system rather than having the system adjust for the child. Ysseldyke and Algozzine (1979) have presented a summary of selected investigations on the effects of labeling.

The National Association of School Psychologists (Advocacy, 1985) offered a position paper recognizing that "it is not a benign action to label as 'handicapped' children who are not truly handicapped" (p.4). The position statement discussed problems originating from labeling. According to their statement the label is often irrelevant to instruction, may prevent more meaningful understanding of the child's needs, may reduce expectations for the child, and often decreases the willingness of regular educators to teach children at risk for failure.

Differential Diagnosis

Trippe and Matthey (1982) discussed the theory that mentally retarded, emotionally handicapped, and learning disabled are school-induced classifications for children who are not learning, not adjusting, or are learning differently from the norm. According to their article, 90% of children in special education are there because they did not meet the expectations of regular education. Children who did not meet a minimal acceptable rate of learning in the regular classroom were removed to special classes. This action did not remove all children who posed serious problems for teachers, so classes for children with emotional problems that interfere with learning were formed. This still left children in class who in some ways were socially and academically competent, but were

failing to learn through usual classrooom procedures. Rather than question the practices of the school, the child was labeled handicapped and placed in a special class for the learning disabled. This all has occured even though research has failed to document that children are more effectively served in segregated programs (Trippe & Mathey, 1982).

Considering the criteria for classifying children as mentally retarded, emotionally handicapped, or learning disabled, Trippe and Mathey (1982) noted that it is "rather pointless to ask if a particular child is really learning disabled or emotionally disturbed and to expect that the question can be answered accurately and reliably by present available clinical procedures and evaluations" (p.6). Continuing, they contended that not only is the decision difficult to make , but it is also of minimual value in making educational decisions. Furthermore, they noted that most decisions regarding these children tended to be made arbitrarily. Differentiating mentally retarded children from learning disabled and emotionally handicapped children is more likely to be determined on the basis of intelligence scores and adaptive behavior, a practice that has generated "controversy over tests, testing, cultural bias, and the disproportionate representation of lower socieconomic and minority children in classes for the mentally retarded" (Trippe & Mathey, 1982, p.7). They

viewed the growth of classes for the learning disabled as a consequence of change in social system labeling, not as a change in child populations. Trippe and Mathey (1982) contended that the categories mentally retarded, emotionally handicapped, and learning disabled were manufactured by educators for organizational, political, and economic reasons.

Support for the Study

Professional Practice

Current practices revolving around identification and research methods are of concern to this study. Each relies on the other.

Identification. The difficulties surrounding accurate identification of children as learning disabled or emotionally handicapped have been discussed at length. Research has indicated problems with present referral, assessment, labeling, and differential diagnostic practices. Adelman and Taylor (1983) stated that the diagnostic classification of learning disabilities is a practical necessity and a procedural problem. Ysseldyke (1983) reviewed the current practices in making psychoeducational decisions about learning disabled children and arrived at the following conclusions: (a) Team meetings are ineffective and children are placed regardless of the data presented, (b) inadequate tests are used to evaluate children, (c) evaluators cannot differentiate between low-

achievers and learning disabled children, (d) interventions specific to learning disabled children are nonexistent, and (e) referral is the most important decision towards the placement of a child. Osgood (1984) noted that presently identification as learning disabled is based on formulae and charts that explicitly denote the potential and achievement scores required to qualify.

The identification of emotionally handicapped children is based on theoretical view, tests, interview, observations, and clinical judgment. Reviewing current identification practices, Long et al. (1980) wrote that three problems confound the determination of deviance; (a) philosophical stance toward conformity, (b) whether the implied blame on the child is justified or whether external conditions must be changed, and (c) whether screening and diagnosis are often a prelude to a self-fulfilling prophecy. Since it is the first decision made in the identification process, referral is an important decision in the process leading to placement of the deviant child.

Research. Morrison et al. (1985) discussed the identification of learning disabled children and its effects on sampling for research purposes. Lakin (1982) did the same for emotionally handicapped children. Both articles warn that unreliable sampling procedures have

seriously reduced the generalizability of current research. Furthermore, both articles recommended that researchers define samples more specifically, recognize the complexity of educational situations, and strive to relate more of their work to the real world of the classroom.

Categorical Classification

Special education was supposed to be the response to students' special needs. Instead it has become a "nonsystem" (Ysseldyke, Reynolds, & Weinberg, 1984) that has created major problems. Ysseldyke et al. (1984) called for the demise of extended categories as useful instructional classifications, stating that "none of the classifications is reliable or used consistently across various school districts. In particular, the categories used for the 'milder' levels of deviation from the norm are virtually unrelated to instruction"(p.8). In their text, Ysseldyke et al. (1984) suggested disbanding entirely the process of classifying mildly handicapped children.

Stating that there are not special students and regular students but a continuum of students, Stainback and Stainback (1984) presented their rationale for the merger of special and regular education. They contended that all students could benefit from individualized services, and that there were not two discrete sets of

instructional methods making a dual system of education necessary. According to Stainback and Stainback (1984) the system created the need to classify students even though classification is minimally useful in educational planning. Furthermore, Stainback and Stainback (1984) stated that although some students may need modification and adaptations in their education, their needs could be met in a system that recognizes and accommodates for differences.

Studies (Lilly, 1977; Stainback & Stainback, 1984; Sherry, 1982; Trippe & Mathey, 1982; Ysseldyke et al., 1984) have suggested that the concept of categorical classification may be faulty because of focus: instead of accommodating the system to the child, the child is labeled deviant and placed outside the system. In addition, each considered the validity of the categories and their usefulness to education. PL 94-142 as a means of ensuring that no child is turned away from the public schools guarantees a free and appropriate education to all children. This law and its regulations have probably had more influence than any other factors on the growing trend to categorize children (Algozzine & Korinek, 1985; Trippe & Mathey, 1982). Requiring classification for services, PL 94-142 with its mandates based on ideals, has led to conceptual confusion and "educators have responded by doing some absurd things under the belief that 'it is the

law'" (Ysseldyke & Algozzine, 1982, p. 233). The wide varibility in interpreting what the law requires and how it differientates between classifications has created a situation of unequal services and wide variance in identification.

Instrumentation

Intelligence Measure

Wechsler Intelligence Scale for Children-Revised. The WISC-R is a measure of intelligence that reflects capacity for intelligent behavior (Wechsler, 1974). It is perhaps the most widely used measure of intellectual functioning for children ages 6-0 to 16-11 years old (Newmark, 1985). It has been normed using a stratified sampling procedure to ensure representative proportions of various classes of children as based on 1970 census data. Variables of age, sex, race (white, non-white), geographic region, occupation of head of household , and urban-rural residence were controlled.

Standardization. The norming sample consisted of 2200 cases limited to "normal" children. Institutionalized mental defectives and children with severe emotional problems were not included (Wechsler, 1974). It is certain that children with learning disabilities, school identified and not-yet identified were included in the sample (Klalskin, McNamara, Shaffer, & Pencus, 1972). Galvin (1981) concluded that since mildly handicapped

children were not excluded in the norming sample the WISC-R is appropriate to use in their assessment.

Reliability. The WISC-R has excellent reliability. High internal consistency has been reported for the scales (Sattler, 1982; Wechsler, 1974). Split-half reliability coefficients were found to be .90 for the performance IQ, .94 for the verbal IQ, and .96 for the full scale IQ (Newmark, 1985; Wechsler, 1974). Test-retest reliability assessed by retesting 303 children for the standardization sample also suggested stability. These correlations were .93 for the verbal IQ, .90 for the performance IQ, and .95 for the full scale IQ. Practice effects seem to influence the performance scale to a greater degree than the verbal scale (Newmark, 1985). For learning disabled children the WISC-R has a test-retest reliability coefficient of .94 for a group of 161 learning disabled children after a seven month interval which supports the idea of reliability of the WISC-R with these children (Galvin, 1981).

Validity. Sattler (1982) gave a thorough review of studies evaluating the criterion validity of the WISC-R to other measures of intelligence. Correlates between these tests range from the upper .30's to the low .80's indicating satisfactory concurrent validity. Factor analysis has been utilized to investigate the construct validity of the WISC-R. The factor structure divides into

three main factors: verbal comprehension, perceptual organization, and freedom from distractibility. Studies have reported that this factor structure is evident in samples of mentally retarded children, adolescent psychratric populations, and learning disabled children (Newmark, 1985). Considering the predictive validity of the WISC-R, studies have indicated that it is a good predictor of school achievement (Sattler, 1982).

Achievement Measures

Stanford Achievement Test. The SAT is both a norm-referenced and criterion-referenced test to assess skill development in several academic content areas. Three forms of the test are available for six levels from grade 1.5 to 9.5. The test is generally administered to groups of children in a classroom setting. Administration time takes from three hours fifteen minutes to five hours thirty minutes depending on test level. Scores are reported as stanines, grade-equivalents, percentiles, age scores, and standard scores.

The SAT has excellent standardization. Norms are available for October and May administrations. The Otis-Lennon Mental Abilities Test was used as a control measure to ensure that the standardization sample was representative in terms of intellectual ability. School systems used in the standardization sample were selected on the bases of region, community socioenomic status, and

school-system size. Reliabilities ranged from .65 to .97. Content validity was assured by submitting the test items to subject-matter experts, measurement experts, minority group persons, and teachers. Empirical validity indicates a moderate to high relationship to the Metropolitan Achievement Tests (Salvia & Ysseldyke, 1978).

Wide Range Achievement Test. The WRAT is a quick, individually-administered achievement test that was designed to measure skills in word recognition, spelling, and math computation. The test is divided into two age spans. Three types of scores are provided: grade equivalents, percentiles, and standard scores.

The WRAT was normed in 1976 and using the same sample was renormed in 1978. The normative sample consisted of 7,800 children for Level I and 7,400 children and adults for Level II. Efforts were made to include ethnic groups and persons from each IQ level. However, no representative national sampling was conducted. The WRAT norms tend to underestimate achievement levels (Sattler, 1982).

Split-half reliabilities range from .94 to .98 for all three subtests at both levels. Standard errors of measurement are available in the manual (Jastak, Jastak, & Bijou 1976). Test-retest reliabilities for samples of emotionally disturbed and slow learning children range from .87 to .98 (Sattler, 1982). This supports the practice of using this test with these populations.

Validity studies have been done with the WRAT and other achievement, intelligence, and ability tests. The results of these studies suggest adequate concurrent validity. Correlations between the WRAT and various achievement tests are in the vicinity of .60 with several groups of children including normal, learning disabled, economically deprived, and mentally retarded (Sattler, 1982). Correlations with intelligence and ability tests are in the vicinity of .40.

Woodcock Johnson Tests of Achievement. The WJTA is part of the Woodcock-Johnson Psycho-Educational Battery (1977). The battery was standardized on 4,732 subjects ranging in age from 3-0 to 80 years old living in 49 communities across the United States. The sample population was chosen to closely resemble the 1970 census. Handicapped children who were not receiving their education in a regular classroom were excluded (Salvia & Ysseldyke, 1981).

Reliabilities, reported in the manual, were calculated for percentile ranks and standard scores rather than raw scores. Split-half reliabilities for the achievement tests range within the .80's and .90's. The technical manual fails to provide standard errors of measurement (Woodcock, 1978).

Concurrent and predictive validity coefficients using various intelligence, ability, and achievement tests as

criteria, are satisfactory. Coefficients range from .40 to .80 (Sattler, 1982).

Process/ Emotionality Measure

The Bender-Gestalt Visual Motor Test is among the 10 most popular means of personality appraisal. Additionally, it is popular as a tool for sampling visual motor behavior (Newmark, 1985). The Koppitz Developmental Bender Scoring System is perhaps the most popular objective scoring system used in evaluating children (Sattler, 1982). Percentile norms are available for children aged 5-0 through 10-11 years (Koppitz, 1963). The norms are based on a sample of 975 elementary school children from varied geographic locations. The sample included children from several ethnic groups. The socioeconomic characteristics of the sample were not reported.

Test-retest reliabilities have ranged from .50 to .90 for the developmental scoring system. Sattler (1982) suggested that the level of reliability is not high enough to permit basing diagnostic decisions on the test alone. The validity of the Bender is determined by the use of the instrument. Used as a test of perceptual-motor development, tne Bender appears to have acceptable validity. Concurrent validity was established by correlating with the Frostig Developmental Test of Visual Perception (r=.39 to .56) and the Berry Developmental Test of Visual Motor Integration (r=.82).

Koppitz (1963) reported several studies suggesting that the Bender can differentiate between children who are well adjusted and those who are not. Koppitz (1963) found that among subjects five to seven years of age 66% of these children with two or less emotional indicators on their Bender protocols were well adjusted while 66% of these children with three or more emotional indicators were emotionally handicapped. Sixty percent of children aged eight to 10 years with two or less emotional indicators had normal adjustment while 90% of the children in this age group with three or more emotional indicators were emotionally handicapped. Thus it appears that the number of emotional indicators on a given Bender protocol has diagnostic value.

Behavioral Checklist

The behavioral checklist was developed by combining the behavioral observations found in the anecdotal records of the sample of learning disabled and emotionally handicapped children. The behaviors were first copied from the records then grouped into eight categories. (Appendix E) The list was then reviewed by two school psychologists, a special education specialist, and several special education teachers. Revisions were made according to their suggestions so that those behaviors generally associated with each category was properly listed. No behaviors were added to the original list.

CHAPTER III

METHODOLOGY

Overview

The purpose of this investigation was to provide empirical evidence regarding the psychometric and behavioral characteristics of children selected from special categories of school placement, learning disabled, emotionally handicapped, and underachievers as defined in the Definition of Terms. The intellectual ability, academic achievement, visual-motor integration, emotional status, and behavioral characteristics of a sample of these children were evaluated to determine if any significant differences were evident among the groups. Furthermore, the data were analyzed to determine if any measure could differentiate among the three groups, and thus be of diagnostic value.

Variables

The variables relevant to this study included (a) the verbal, performance, and full scale scores from the Wechsler Intelligence Scale for Children-Revised, (b) reading and math scores from the Wide Range Achievement Test or Woodcock-Johnson Tests of Achievement, (c) error

and emotional indicator scores from the Bender-Gestalt using Koppitz's scoring system, (d) ratings from behavioral assessments, (e) amount of variance between ability and achievement, and (f) placement in learning disabilities, emotionally handicapped, or Chapter I program for underachievers. Variables that were controlled to limit their effects included age, sex, school setting, date of evaluation, and test administrator.

Population

The public school population of the United States in the Fall of 1984 equaled 49,000,000 students. Of these 4,298,000 were in special education. Of those in special education 42% were in learning disabilities classes, and 8.4% were in classes for the emotionally handicapped with the balance in other classes for exceptional children (US Bureau of Census, 1985). There is considerable variance among estimates of the prevalence of the various "handicapping conditions." Large variability in percentages served exists among states; however, classification patterns indicate that emotionally handicapped students generally represent the smallest high prevalence category and learning disabilities the largest (Algozzine & Korinek, 1985).

The State of Florida reported 4% of its student population was in special education as of 1983. This figure is slightly less than the national percentage.

For the purposes of this study the populations of learning disabled and emotionally handicapped children were defined as students qualifying for these programs in the public school system in Clay County, Florida. The Clay County public school system also identified 4% of its student population or 3525 children, as of September 1985, as in need of special education. Of this number, 976 were in classes for learning disabled and 205 were in classes for the emotionally handicapped. The guidelines for inclusion have been approved by the State of Florida as fullfilling the requirements of PL 94-142 and for State of Florida special education funding (G. Eilers, personal communication, October, 1985).

Students in Clay County Public Schools qualify for the learning disabilities program when evaluation by a certified school psychologist produces evidence that a statistically significant discrepancy exists between their intellectual ability and academic achievement. Additionally, testing must reveal a disorder in the basic psychological processes corroborated by two instruments. Evidence must also be presented indicating that learning problems are not primarily caused by other handicapping conditions. A complete copy of Clay County's guidelines for referral, evaluation, and placement can be found in Appendix A (Clay County School Board, 1984). Additionally, by consensus of the school psychologists working in the

system it is common practice in Clay County to use the higher IQ score in determining academic discrepancy if a significant difference exists between IQ scores. Prior to August, 1984, a significant difference between verbal and performance scores was considered to be 12 points. Because of the large number of students obtaining such scores (Kaufman, 1979) the psychologists decided at their August, 1984 staff meeting that they would consider 15 points as significant in making decisions regarding learning disabilities. Thus, variance scores for this study were determined by using the full scale score minus the lowest achievement score (either reading or math) except if a 15 point difference existed between a child's verbal IQ and performance IQ scores. Then the highest IQ score minus the lowest achievement score was used as the variance score.

To qualify for the program for the emotionally handicapped the student is evaluated by a certified school psychologist through observation, interview, and testing. Evidence must indicate that the child's primary problem cannot be attributed to intellectual deficits. Furthermore, it must be determined that the student may profit from special education opportunities. A child is considered emotionally handicapped when his or her reactions to life situations are so personally unrewarding and so inappropriate as to be unacceptable to peers and to

adults. The emotionally handicapped child demonstrates the extremes of any variable of behavior. The complete text of the Clay County guidelines for inclusion in the program for the emotionally handicapped is in Appendix B (Clay County School Board, 1984).

The underachievers were defined as those children who have not been referred for special education and who are receiving Chapter I services in Clay County Public Schools. In the spring of 1985, these children had scored at or below the 30th percentile on the Stanford Achievement Test in reading or math.

Sample

The sample included 57 children who attended four public elementary schools in Clay County, Florida. Twenty-eight children were in resource programs for learning disabilities, six were in resource programs for emotional handicaps, and 23 were in Chapter I resource classes. Criteria for being chosen for the study required that the student be between the ages of 7-0 to 11-6 so that none of the subjects were too old to apply Koppitz's scoring system to the Bender Gestalt nor so young as to reduce the validity of the other measures. All the students also were in grade two, or repeating grade one, through grade five.

The sample of learning disabled and emotionally handicapped children was drawn from all the children

evaluated and subsequently placed in special education during the 1984-1985 school year. They were evaluated according to Clay County guidelines by the researcher and one other school psychologist both of whom used standardized test procedures. Only those children who met the criteria of age and grade placement were included in the study.

A stratified random sample of underachievers was developed to proportionally match the learning disabled and emotionally handicapped groups. These students came from three of the five elementary schools offering Chapter I services. They were chosen by Walter Brock, director of Chapter I (personal communication, September 6, 1985). Computer generated lists were utilized to identify the underachieving children by grade, school, sex, and age. The table of random numbers was then used to select 33 children for the study. Permission was obtained to evaluate 23 of these children.

Procedures

The records of those children selected to be part of the learning disabled and emotionally handicapped samples were studied and relevant information gathered. This included WISC-R scores, achievement scores, Bender-Gestalt scores, and ancedotal records which are part of the child's placement record.

Consent forms were sent to the parents or guardians of those children selected to be part of the sample of underachieving students (Appendix C). Permission to be included in the study was obtained for 71% of the selected underachieving students. After permission was obtained to include a child in the study, the Wechsler Intelligence Scale for Children-Revised, the Wide Range Achievement Test and Bender-Gestalt were administered to the child if the child consented to testing (Appendix D). The child's teacher was asked to complete a behavioral checklist rating the child's classroom behaviors (Appendix E). All evaluations took place during the normal school day at a time agreed upon by the child's teacher and the examiner. All evaluations were undertaken by one of two school psychologists or one of two graduate students and took no more than two hours per student. All efforts were made to disrupt the school day as little as possible and to make the experience as pleasant as possible. Test results were made available to the child's parents and, with their permission, to the child's teacher.

All data were identified by coded number to safeguard the confidentially of the child. Results were recorded using standard scores with a mean of 100 and standard deviation of 15 except emotional indicater scores which were recorded as the number of indicators observed,

and behavioral ratings which were recorded as yes or no. All data were recorded by the researcher and randomly checked by another school psychologist for accuracy.

Instruments

The Wechsler Intelligence Scale for Children-Revised (WISC-R), the Wide Range Achievement Test (WRAT), the Woodcock Johnson Tests of Achievement (WJTA), and the Bender-Gestalt Visual Motor Test were choosen for this study because of their common use as a test battery for placing children in special education programs (Perlmutter & Parus, 1983). Furthermore, each of these instruments has adequate validity and reliability for the groups being evaluated, as discussed in Chapter 2. Table 5 illustrates the constructional data for each of the instruments used as part of the psychometric battery.

The behavioral checklist (Appendix E) was developed by combining the anecdotal records of the sample of learning disabled and emotionally handicapped children into a grouped list of behaviors. The ancedotal records were initially written by classroom teachers to fulfill referral requirements. Thus, they tend to present a slanted view of the children's behavior. Teachers have a tendency to note those behaviors they have been taught to look for when determining when a child may need special education. Teachers reported that it was simple to use and took approximately five minutes to complete.

Table 5

Constructional Data

	WISC-R	WJTA	WRAT	Bender
purpose	measure mental ability	assess academic growth	measure skill in reading, spelling,	assess level of visual-motor perception; emotionality
age	6 to 16	3 to 83	5 to 64	5 to 10-11
examiner	psych.*	psych. teacher	psych. teacher	psych.
scores	standard scaled test age	standard gr. equ. staines age level percentiles	standard age level grade equ. percentiles	standard percentiles age level
score range	40-160	55-145	55-145	8-155
time	50-75m	40-60m	20-30m	10-20m
scoring	30m	30m	15m	10m

*psychologist

The pool of underachievers was identified based on the results of the Stanford Achievement Test. The SAT is a group-administered test that is available for eight levels ranging from primary (grade 1.5 - 2.4) to task level II (grade 11 - 12). Children in the sample were tested with batteries appropriate to their grade level. The child's supervised the test administration at the school level. The battery was given during one week in March of 1985 to all children in Clay County schools. The interpretation

of raw scores is based on norms obtained from over 275,000 students drawn from 43 states in the United States. These norms were used to obtain percentile ranks. All test protocols were machine scored (T. Finn, personal communication, September, 1985).

Research Participants

All data were gathered by the researcher, one other school psychologist, and two graduate students in school psychology. The researcher holds a specialist degree in school psychology and masters in special education. She has practiced school psychology for two years and has been a teacher for 18 years, five in special education. The second psychologist holds a master's degree in school psychology and has worked in the field for seven years. Prior to this she was a special education teacher. Both participants are employed as school psychologists by the Clay County Public School System and hold valid certification. The graduate students had just completed a course in tests and evaluation and were trained by the researcher to administer the research battery.

Analysis

The data were analyzed in two parts using SPSS packages. First, the normative data from the Wechsler Intelligence Scale for Children-Revised, Wide Range Achievement Test, Woodcock-Johnson Tests of Achievement, and Bender were analyzed using one-way analysis of

variance. A separate analysis was performed for each score by group. Post hoc analyses using the Scheffe procedure were performed when significance at the .05 level or beyond among groups was found to determine between which means significant differences existed. The second part of the analysis consisted of applying chi-square tests to determine whether the frequency of yes and no responses differed among the three groups for each of the eight categories on the behavioral checklist. The percent of occurrence for each category by group was used to determine which group or groups obtained a high proportion of yes responses for each behavior.

Limitations

Conclusions based on the current investigation's findings must be tempered because of several methodological factors. First, the limitations of current diagnostic procedures almost guarantee that children in any given sample taken from pre-identified groups will differ as to the nature and severity of their problems. Second, although standardized procedures were utilized, the limitions inherent in the evaluation measures must be considered including that the behavioral checklist was not a standardized instrument. Third, another difficulty was that given the same data different examiners may arrive at different conclusions which in turn affect future decisions made regarding a child. A fourth limitation

stems from the fact that all data for the learning disabled and emotionally handicapped groups were gathered from placement data obtained during the 1984-1985 school year. Data for the underachievers were obtained during the 1985-1986 school year. Differences in scores may be related to current history and attitudes. Fifth, generalization is limited because the sample may not match the national population of learning disabled, emotionally handicapped, or underachieving children because of the lack of consensus regarding criteria to identify and define these groups of children. The sample was also limited in size and from a small geographic area. Analysis is also limited because of the correlational effects of the data. No provision was made in this study to account for the interaction of the variables upon each other. The intercorrelation of the variables was not investigated statistically because the size of the samples would not allow for valid tests of this type.

CHAPTER IV

ANALYSIS OF RESULTS

The purpose of this study was to investigate the discriminating value of commonly-used diagnostic measures among learning disabled (LD), emotionally handicapped (EH), and underachieving (UA) children. To this end psychometric and behavioral data were collected for a sample of 57 students. The Wechsler Intelligence Scale for Children-Revised, Wide Range Achievement Test, or Woodcock-Johnson Tests of Achievement, Bender, and a behavioral checklist were utilized.

Table 6 illustrates the distribution for the sample for this study which was comprised of previously-placed learning disabled and emotionally handicapped children and a stratified random sample of underachieving children chosen to proportionally match the learning disabled/ emotionally handicapped group on the basis of school setting, grade level, and sex. Of 33 children chosen to form the underachieving group permission to be in the study was obtained for 23. All the children in the learning disabled and emotionally handicapped classes were evaluated and placed during the 1984-1985 school year.

Test data and behavioral observations were gathered from county records for these children. The children in the underachieving group were evaluated during the 1985-1986 school year by two school psychologists and two graduate students. The behavioral checklist for each of these students was completed by their regular classroom teacher.

Table 6

Sample Distribution

Condition	Group					
	LD		EH		UA	
	N	%	N	%	N	%
School						
urban	21	75	5	83	18	78
rural	7	25	1	17	5	22
Grade						
1*	0	0	1	16.6	0	0
2	12	42.9	1	16.6	11	47.8
3	9	32	2	33.3	5	21.7
4	6	21.4	2	33.3	6	26
5	1	3.5	0	0	1	4.3
Sex						
M	22	78.5	6	100	17	81.8
F	6	27.3	0	0	6	18.2

* repeating grade 1

One-way analysis of variance was used to test the data for the Wechsler Intelligence Scale for Children-Revised, the Wide Range Achievement Test, Woodcock-Johnson Tests of Achievement, and Bender. Standard scores with a mean of 100 and standard deviation of 15 were used in the statistical analysis.

Table 7

Summary Descriptive Statistics, ANOVA, and Scheffé of Psychometric Data By Group

Variable	LD	EH	UA	F	F prob.	Scheffé
VIQ						
M	102.6	84.3	96	6.192	.0038*	LD>EH
SD	12.7	11.5	11.6			
PIQ						
M	104.8	92	101	2.419	.0986	
SD	12.3	16.1	13.6			
FSIQ						
M	103.8	86.6	98.1	5.863	.0050*	LD>EH
SD	11.1	12.9	11.6			
Variance						
M	-1.55	-0.33	-0.52	13.924	.0000**	LD>EH/UA
SD	.59	.79	.91			
Reading						
M	86.5	84.5	96.2	7.755	.0011*	UA>LD/EH
SD	10.6	9.6	8.1			
Math						
M	97.8	88.1	96.9	1.779	.1785	
SD	12.9	5.9	10.4			
Bender						
VI						
M	87.1	83.2	92.4	.709	.4965	
SD	20.7	20.4	19.4			
EI						
M	1.1	3.0	1.9	9.919	.0002**	EH/UA>LD
SD	.9	1.1	1.0			EH>UA

* $p<.01$
** $p<.001$

Table 7 summarizes the means and standard deviations obtained by the three groups of children on the psychometric measures. Scheffe's multiple comparison tests were used to determine between which of the means

significant differences existed and are also summarized in Table 7. The ANOVA summary table is presented in Appendix F.

Since the data from the behavioral checklist were nominal in nature, chi-square was used to determine whether the frequency of behaviors differed among the three groups. These data are summarized in Table 8.

Table 8

Summary of Significance Tests on Responses to Behavioral Checklist

		Group				
Response		LD	EH	UA	Chi-square	Prob
			Distracts self			
Yes	n	8	6	16	11.44	.0033**
	%	34.8	100	72.7		
No	n	15	0	6		
	%	65.2	0	27.3		
			Distracts class			
Yes	n	3	3	10	6.58	.0372*
	%	13.0	50.0	45.5		
No	n	20	3	12		
	%	87.0	50.0	54.4		
			Poor work habits			
Yes	n	14	5	13	1.25	.5357
	%	60.9	83.3	59.1		
No	n	9	1	9		
	%	39.1	16.7	40.9		

Table 8 continued

Response		LD	EH	UA	Chi-square	Prob
		Processing and Memory Problems				
Yes	n	15	1	14	5.00	.0820
	%	65.2	16.7	63.6		
No	n	8	5	8		
	%	34.8	83.3	36.4		
		Poor Self Concept				
Yes	n	1	3	11	12.67	.0018**
	%	4.3	50.0	50.0		
No	n	22	3	11		
	%	95.7	50.0	50.0		
		Aggressive				
Yes	n	0	3	5	10.44	.0054**
	%	0	50	22.7		
No	n	23	3	17		
	%	100	50	77.3		
		Antisocial				
Yes	n	0	4	2	20.64	.0000***
	%	0	66.7	9.1		
No	n	23	2	20		
	%	100	33.3	90.9		
		Inappropriate Affect				
Yes	n	0	4	6	14.85	.0006***
	%	0	66.7	27.3		
No	n	23	2	16		
	%	100	33.3	72.7		

* $p<.05$
** $p<.01$
*** $p<.001$

Research Question 1

Can emotionally handicapped, learning disabled, and underachieving children be differentiated based on reading and/or math scores obtained from the Wide Range Achievement Test or Woodcock-Johnson Tests of Achievement?

A one-way analysis of variance was used in analyzing the data by group for each the reading and math subtest. The results showed significant differences among the groups in reading ($F=7.755$, df 2, 54, $p<.01$). The mean differences between groups failed to reach significance ($F=1.779$, df 2, 54, $p<.17$) on the math subtest. Scheffé's multiple comparison test was used to determine the means between which significant differences existed on the reading subtest. An examination of the means in Table 7 indicates that the mean for underachieving children was significantly higher than the mean for the learning disabled group and the mean for the emotionally handicapped group.

Research Question 2

Can emotionally handicapped, learning disabled, and underachieving children be differentiated based on verbal, performance, or full scale scores from the Wechsler Intelligence Scale for Children-Revised?

The results of a one-way analysis of variance revealed significant differences among the groups in verbal scores ($F=6.192$, df 2, 54, $p<.01$) and full scale scores

(F=5.863, df 2, 54, p<.01). The difference between means failed to reach significance on performance scores (F=2.419, df 2, 54, p<.09). Scheffe tests were computed to determine which groups were significantly different from each other on the variables verbal score and full scale score. It was found that on both variables the learning disabled group was significantly higher than the emotionally handicapped group (p<.01). No other significant differences were found.

Research Question 3

Can emotionally handicapped, learning disabled, and underachieving children be differentiated based on age equivalent scores or number of emotional indicators from the Bender-Gestalt?

Analysis of the Bender age equivalent scores indicated no significant differences among the groups (F= .709, df 2, 54, p<.49). Significant differences were found among the groups on mean number of emotional indicators (F= 9.919. df 2,54, p<.01). The Scheffe procedure revealed significant differences between groups. The emotionally handicapped group's mean was significantly higher than the means of the learning disabled and underachieving groups. Moreover, the underachieving group's mean was also significantly higher than the mean of the learning disabled group.

Research Question 4

Can emotionally handicapped, learning disabled, and underachieving children be differentiated based on teacher completed behavioral checklist?

Chi-square analyses suggested that eight of the six characteristics on the behavioral checklist were significant. As shown on Table 8, 100% of the emotionally handicapped children were characterized as being self distracting compared to 72% of the underachieving group and 34% of the learning disabled group, chi-square ($2, N=51$) = 11.44, $p<.01$. The emotionally handicapped children also were rated as more aggressive, antisocial, and as showing more inappropriate affect than the underachieving and learning disabled children. The analyses revealed that both emotionally handicapped and underachieving children seemed more likely to have a poor self concept and to be distracting to the class. None of the learning disabled children were rated as being aggressive, antisocial, or as showing inappropriate affect. Chi-square analyses indicated no significant differences among the three groups as related to work habits and processing and memory problems.

Research Question 5

Can emotionally handicapped, learning disabled, and underachieving children be differentiated based on the

amount of variance between their Wechsler scores and achievement scores?

A significant difference was found to exist among the groups on verbal IQ ($F=6.192$, df 2, 54, $p<.01$). The analysis of variance also showed that the groups' means were significantly different on the variable full scale IQ ($F= 5.863$, df 2, 54, $p<.01$) The mean differences among the groups failed to reach significance ($F=2.419$, df 2, 54, $p<.09$) on the performance IQ means. The Scheffé tests were conducted on the verbal IQ and full scale IQ data and indicated that the learning disabled children scored significantly higher than the emotionally handicapped children on both these variables. No other significant differences were found.

CHAPTER V

CONCLUSIONS

Summary

Problem

This study focused on the problems associated with categorizing children into programs for the mildly handicapped. There are many factors involved in the placement of children including referral, evaluation, and differential diagnosis. Multiple components surround each of these areas, such as definitions of handicapping conditions, testing, labeling, and educational practice. It is very difficult to study any one aspect of the problem of categorical education without including the others. However, the primary purpose of this study was to evaluate the ability of a standardized test battery and teacher-made behavioral observations to differentiate among learning disabled, emotionally handicapped, and underachieving children.

Diagnoses can be made only when conditions are known or defined (Bennett, 1983). Thus, the definitions of learning disabled, emotionally handicapped, and underachievement used by the Clay County public school

system were adopted as the identifying criteria. Data from evaluations of children in each of these three groups were analyzed to determine if significant differences existed among them. The statistical procedure, one-way analysis of variance was utilized to assess the psychometric data. The nominal data were analyzed using chi-square.

Results

The analyses indicate that the learning disabled sample scored significantly higher than the emotionally handicapped sample on the the variable verbal IQ and subsequently on the variable full scale IQ. The mean scores in Table 7 suggest that the learning disabled and underachieving children scored in the average range of ability and the emotionally handicapped children in the lower extreme of the low average range. This is consistent with the criteria for learning disabilities placement (Appendix A) and with idea that underachievers should possess near average or better intellectual ability. The lower scores obtained by emotionally handicapped children have reflected their depressed ability to function verbably.

A one-way analysis of variance gives evidence that the underachieving group obtained significantly higher scores in reading than the other children. Thus, although

these children are eligible to receive special help in reading and/or math they were not in as serious trouble academically as the learning disabled or emotionally handicapped children. This is not surprising given the fact that the cut-off for inclusion in Chapter I was a percentile score of 30 on a group test. In other words, some of the children in the underachieving group were demonstrating average to near average skills.

It is interesting to note that statistically more of the underachievers seem to have been experiencing behavioral/emotional problems than the learning disabled group. This was shown on the Bender and on the behavioral checklist.

As illustrated in Table 7, the emotionally handicapped and underachieving children differed significantly from the learning disabled group on these measures. The underachieving children showed significantly more signs associated with emotional instability than the learning disabled group on the Bender. Teachers also rated the underachieving group as having more emotional/behavioral problems than the learning disabled children. Table 8 exhibits the ratings and suggests that learning disabled children can be differentiated from emotionally handicapped and underachieving children based on their behavior. The learning disabled children received the least yes responses on the behavioral

checklist among the groups. None of the learning disabled children were rated as aggressive, antisocial, or as showing inappropriate affect. Only 4% of these children were rated as demonstrating a poor self-concept. In contrast, 100% of the emotionally handicapped children were evaluated as self distacting, and 50% or more of these children were seen as distracting to the class, having a poor self-concept, being aggressive, antisocial, and showing inappropriate affect. These results are consistant with the ideas presented by Trippe and Mathey (1982) and Ysseldyke (1983). The underachieving children were evaluated as being self distracting, distracting to their class, and as demonstrating a poor self concept. On these last two factors their mean scores were very similiar to those of the emotionally handicapped group. There were no significant differences among the teacher ratings for the three groups on poor work habits or memory and processing skills.

Variance between achievement and ability seems to be a discriminating factor. The analyses give evidence that the learning disabled children had significantly more variance between ability and achievement than the emotionally handicapped and underachieving groups. Having at least one standard deviation of difference between IQ and achievement was a required criterion for this age group for placement in learning disabilities classes in

Clay County (Appendix A). However, the mean score was -1.5 for the learning disabled group whereas the emotionally handicapped and underachieving children appeared to be functioning much closer to their ability levels. These results are in contrast to those of Sherry (1982) and Ysseldyke, Allgozzine, Shinn, and McGue (1982).

Recommendations

Educators and researchers need to make continued efforts to define and characterize handicapping conditions if they wish to make consistent differential diagnoses. This study should be replicated increasing the sample size and geographic area included. In other words, it would be benifical if this study could be conducted using children from various parts of the country, but maintaining the same criteria for inclusion. This would help eliminate one of the problems that now exists, namely, that different researchers are not using consistent criteria for identifying children as members of specific groups and thus reporting conflicting results. With a larger sample discriminate analysis could be conducted to test the data and the intercorrelations of the variables could also be evaluated.

Research should continue to explore the value of identifying these children as it relates to their educational and emotional growth. The question of the

value of instructing these children separately from other children still needs to be resolved.

It may be that the frequency, intensity, and duration of behavioral problems, emotionally handicapped, and underachieving children differ. However, since they appear to share many of the same characteristics it seems that educators should address the emotional aspects of underachievement with greater intensity. If children are expected to develop healthy personalities it is important that their emotional needs be addressed. These children are telling us something by their behavior. Shall we label them deviant and set them out of the social system or is it not time to listen to Eirkson (1980) and provide educational environments that promote positive growth? School psychologists are in a unique position to offer counseling to these children and their parents, and consultative services to teachers to minimize the problems of underachievement.

Implications

The data gathered in this study suggest that learning disabled, emotionally handicapped, and underachieving children do differ from each other. Differences in intellectual functioning, reading ability, emotional status, behavior, and variance between ability and achievement were demonstrated. The groups did not appear to be different in two areas commonly considered

characteristics of learning disabilities, processing and/or memory problems and poor work habits. Underachieving children seemed to demonstrate many of the same behavioral patterns as those children labeled emotionally handicapped.

It is hoped that this study will help educators, legislators, and parents understand the complexity of categorical education. Every child is different, some are just more so. Mildly handicapped children present a problem to educators and parents because their problems are not so pronounced as to be unmistakable, and yet interfere with their progress in school and the orderly running of the classroom. Perhaps we need to stop studying the child and study the system to determine how education can change to meet the needs of children without labeling them and segregating them from the mainstream of society. They may be different from the majority of children and from each other on psychometric measures, but they are still children in their formative years. This study focused on their differences; perhaps we should focus on how they are the same.

The value of continuing the practice of differential diagnosis and special education placement has yet to be shown. In light of Eirkson's theory perhaps we should focus on helping children use their own styles of learning and provide opportunities for growth without labels.

APPENDIX A

CLAY COUNTY GUIDELINES FOR SPECIFIC LEARNING DISABILITIES

Definition: A disorder in one or more of the basic psychological processes involved in understanding or in using spoken or written language. Disorders may be manifested in disorders of listening, thinking, reading, talking, writing, spelling, or arithmethic. Such disorders do not include learning problems which are due primarily to visual, hearing or motor handicaps, to mental retardation, to emotional disturbance or to environmental deprivation.

Students are considered as possible canidates for the program for children with specific learning disabilities if they meet all of the following criteria:

1. Criteria for Eligibility

   a. The student must be between 3-18 years of age. In addition, the SLD student may complete one (1) additional year of school beyond the 13th year, if evidence indicates that a 14th year will enable him to complete requirements for the diploma he seeks.

b. Evidence that learning problems are not due primarily to other handicapping conditions:

1. For students whose history indicates the possibility of visual processing deficits, evidence that acuity is of at least 20/70 in the better eye with the best possible correction, or there must be evidence that the student's inability to perform adequately on tasks which require visual processing is not due primarily to poor visual acuity.

2. For students whose history indicates the possibility of auditory processing or language deficits, evidence that loss of auditory acuity is no more than 30 decibel in the better ear unaided, or evidence that the student's inability to perform adequately on tasks which require auditory processing or language is not due primarily to poor auditory acuity.

3. For students with a motor handicap, there must be evidence that their inability to perform adequately on tasks which assess the basic psychological processes is not due to the motor handicap.

4. For the student with an emotional handicap, evidence must be presented, to the satisfaction of a qualified psychologist, that the student's

inability to perform adequately on tasks which assess the basic psychological process is not due to his emotional handicap.

c. Evidence that intellectual functioning is no more than 2 standard deviations below the mean on an appropriate Wechsler Scale or Stanford Binnet or evidence that such a score is not a reliable indicator of the student's intellectual potential. A standardized intelligence test other than the Wechaler or Stanford Binet may be administered at the discretion of the psychologist. These may include, but not be limited to, the Arthur Adaptation of the Leiter, the Test of Nonverbal Intelligance or the Kaufman ABC.

d. Evidence that the student exhibits a significant discrepancy between levels of intellectual functioning and achievement in the areas of reading, writing, arithmetic or spelling, as follows:

1. For preschool students, a discrepancy of 2/3 standard deviations or more between an intellectual standard score and an academic standard score.

2. For students, other than preschool, through age 10, a discrepancy of one standard deviation

or more between an intellectual standard score and academic score.

3. For students, ages eleven (11) and above, a discrepancy of one and one-half (1 1/2) standard deviations or more between intellectual standard score and academic standard score(s).

e. Evidence of a disorder in the basic psychological processes. Basic psychological process areas include visual, auditory, motor and language processes. A disorder shall be evidenced by performance on an age-appropriate measure chosen from the following: Visual Aural Digit Span Test, Detroit Test of Learning Disabilities, the Woodcock-Johnson, the Kaufman analysis of the Wechsler Scale, or the Bannatyne/Money analysis of the McCarthy Scales of children's abilities or of the Wechsler Scale(s) or the Kaufman ABC. In the case of preschool students, the Gesell Preschool Test may be used with a deficit defined as a standard score one or more standard deviations below the intellectual standard score. The test shall be administered and the deficit(s) determined in keeping with the test publisher's specifications and definitions.

f. In addition, the disorder evidenced in e. must be corroborated by a deficit (per publisher's

specifications) in a related process area as measured by a second instrument noted in e. Corroboration may also be evidenced by student's performance on the Berry Test on Visual Motor Integration, the Bender Visual Motor Gestalt Test (using Koppitz analysis) or in the case of students with documented or suspected expressive language disorders, the Peabody Picture Vocabulary Test or the Pictorial Test of Intelligence. On the Peabody Picture Vocabulary Test and the Pictorial Test of Intelligence, a deficit shall be defined as a standard score one or more standard deviations below the intellectual standard score. In the case of preschool students, corroboration of a deficit area will be obtained from similar subtests on the Mc Carthy or Gesell.

g. Parental cooperation: Parents must be consulted, advised of their due process rights and informed in writing of recommended special class placement/ Informed parental consent, in writing, must be obtained prior to placement unless otherwise determined by hearing procedures initiated by the school.

APPENDIX B

CLAY COUNTY GUIDLINES FOR PROGRAMS FOR THE EMOTIONALLY HANDICAPPED

1. Criteria for Eligibility

a. Definition: Emotionally Handicapped children can be perceived as children who, after receiving supportive educational assistance and counseling services available to all students, still exhibit persistent and consistent severe behavioral disabilities which disrupt the student's own learning process. These children exhibit one or more of the following characteristics to a marked degree and over a period of time:

1. An inability tc learn that connot be explained by intellectual, sensory, or health factors.
2. An inability to build or maintain satisfactory interpersonal relationships with peers and teachers.
3. Inappropriate types of behavior or feelings under normal circumstances
4. A general pervasive mood of unhappiness
5. A tendency to develop physical symptoms,

pains, or fears associated with school or personal problems

A child is emotionally handicapped when his reactions to life situations are so personally unrewarding and so inappropriate as to be unacceptable to his peers and to adults. Thus, handicapped children are viewed as having limited patterns of behavior and lacking flexibility to govern and modify their behavior. Their behavior differs considerably from others in their circumstances, not by kind, but by degree. They are viewed as being too excitable or too withdrawn, too brave or too fearful. They are the extremes of any variable of behavior.

b. Chronological Age: The student must be between 3-18years of age. In addition, the EH student may complete one (1) additional year of school beyond the 13th year if evidence indicates that a 14th year will enable him to complete requirements for the diploma he seeks.

c. Mental Ability: An individual intelligence test (i.e., the Stanford-Binet, Form L-M, Wechsler, or other as deemed appropriate by the evaluator) administrated by a licensed or

certified psychologist, will indicate that the primary problem cannot be attributed to intellectual deficits.

d. School Achievement: An individual achievement test such as the Wide Range Achievement Test, or Peabody Individual Achievement Test will be administered to measure academic progression and identify strengths and weaknesses.

e. Pychological/Pychiatric Diagnosis: It must be determined by a licensed or certified psychologist or psychiatrist that the student's personality and attitudes are such that the student may profit from special education opportunities. Such input will be used in the decision making process of the staffing committee.

f. Parental Cooperation: Parents must be consulted, advised of due process rights, and informed in writing of recommended special class placement. Provisions will be made for a parent education program for all parents of students placed full-time in emotionally handicapped classes. It should be noted that while complete success of any special program for emotionally handicapped children is

contingent upon parental cooperation and participation, children should not be excluded form the program because of lack of parental willingness to contribute.

APPENDIX C

CONSENT FORMS

Fall, 1985

Dear (parent or guardian),

My name is Janet Renuart. I am currently employed as a school psychologist with the Clay County School System and am pursuing my doctoral degree at the University of Florida at Gainesville. During the coming school year I will be conducting research within the Clay County School System. The aim of this study is to provide empirical data regarding the academic achievement, cognitive abilities, visual-motor integration and emotional status for a sample of learning disabled, emotionally disturbed, and non-referred children who scored at the 27th percentile or below on the Stanford Achievement Tests (SAT). This information will be used to determine the best use of tests in placing children in special programs.

As a participant in this study your child will receive a test battery including the Wechsler Intelligence Scale for Children-Revised, the Wide

Range Achievement Test, and the Bender-Gestalt Test for Young Children. Your child's name will not be used and only group results will be reported. However, all results will be available to you, and with your consent to your child's teacher. Since inclusion in the study is dependent on SAT scores I also need your permission to access your child's scores. No monetary compensation will be awarded for taking part in this study.

Efforts will be made to make the test experience a positive one with as little disruption to your child's schedule as possible. You or your child may withdraw permission to be included in the study at any time without prejudice.

Please feel free to contact me if you have any questions. I am at my office Fridays from 8am to 3pm. You may call 284-6500 or 272-8100 ext. 511. If you agree to allow your child to participate in this study and for me to access his/her SAT scores for 1985 please sign below and return this letter to the school. Thank you for your cooperation.

I have read and I understand the procedure described above. I understand that this investigation will be used for educational purposes which may include publication. I also understand

that all information will be kept confidential within legal limits.

I agree to allow my child,_____, to participate in the study and I have received a copy of this description.

signed_____,parent or guardian

address_____

phone _____ date _____

signed_____2nd, parent/witness

date_____

_____,principal investigator

date _____

APPENDIX D

CHILD'S CONSENT FORM

(Child's name), I am (name of examiner), a school psychologist working in the school system. Like you I'm going to school and one thing I'm studying is how different tests measure how people are doing. To do this I'm giving a number of children several tests and would like you to take part in my study. Your parents have said it would be all right. Would you like to help me by being part of the study? If you decide to take part you may stop if you don't want to continue working with me. I'd like you to enjoy what we are doing.

APPENDIX E

BEHAVIORAL CHECKLIST

Student_____ Grade _____ School _____

A. Distractabe to self ..... yes.....no

B. Distracts class - non-aggressive .... yes.....no

C. Poor work habits ..... yes.....no

D. Processing - memory problems ..... yes.....no

E. Poor self concept ..... yes.....no

F. Aggressive ..... yes.....no

G. Antisocial ..... yes.....no

H. Inappropriate affect ..... yes.....no

Behavioral Checklist Explanation

If the child consistantly displays two or more behaviors listed under a category circle yes on the student checklist.

A. Distractable to self
   1. short attention span
   2. daydreams - preoccupied
   3. manipulates objects - toys, pencils, etc...
   4. out of seat
   5. doodling - drawing
   6. rocking in chair
   7. inattentive to lesson

B. Distracts class - non-aggressive
   1. talking
   2. calling out
   3. makes critical remarks - inappropriate remarks
   4. class clown
   5. makes animal noises

C. Poor work habits
   1. unorganized
   2. miscopies work
   3. loses place when working
   4. does not complete work
   5. needs individual lassistance
   6. can not shift from activit;y to another
   7. loses interest quickly
   8. slow to get started - listless
   9. avoids work - ignores assignments

D. Processing - memory problems
   1. auditory short term memory problems
   2. poor in phonics
   3. difficulty following directions
   4. difficulty expressing self verbably

E. Poor self-concept
   1. immature
   2. easily frustrated
   3. shy, quiet
   4. lacks confidence
   5. puts self down
   6. withdraws

7. attention seeking
8. unkept appearance

F. Aggressive
1. hurts others
2. defiant
3. agrumentative
4. belligerent - stubborn
5. temper tantrums

G. Antisocial behavior
1. manipulative
2. thumb sucking
3. writing and/or saying obscenities
4. sexual acting out
5. uses materials inappropriately - colors floor, cuts hair, ect...

H. Inappropriate affect
1. can not accept praise
2. excessive fear
3. does not respond to punishment or praise
4. denies responsibility for behavior
5. overreacts to situations

APPENDIX F

ANALYSIS OF VARIANCE SUMMARIES

Variable	SS	df	MS	F
VIQ				
Between	1825.4	2	912.7	6.192*
Within	7959.4	54	147.4	
PIQ				
Between	845.7	2	422.8	2.419
Within	9440.1	54	174.8	
FSIQ				
Between	1548.3	2	774.2	5.863*
Within	7130.7	54	132.1	
Variance				
Between	15.6	2	7.8	13.924*
Within	28.5	54	.56	
Reading				
Between	1411.0	2	705.5	7.755*
Within	4912.4	54	90.9	
Math				
Between	466.9	2	233.2	1.779
Within	7079.4	54	131.1	
Bender VMI				
Between	577.9	2	288.9	.709
Within	21994.3	54	407.3	
Bender EI				
Between	20.8	2	10.4	9.919*
Within	56.5	54	1.0	

* $p < .01$

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BIOGRAPHICAL SKETCH

Janet Renuart was born of French Canadian parents in Coral Gables, Florida, on January 25, 1945. She attended parochial schools through high school and was also involved in the study of music and art. After high school Janet moved to Jensen Beach, Florida, where she went to Saint Joseph Junior College. Upon receiving her Associate of Arts degree, Janet began teaching in Jacksonville, Florida.

Wishing to continue her education, Janet attended evening and summer classes at Jacksonville University graduating in 1973 with a Bachlor of Arts in psychology and education. During this time Janet was involved working with the youth of her church, leading the youth choir, helping at Saint Mary's Home for Dependent Children, and teaching music at Morning Star School for the Handicapped.

Desiring to move from the city to enjoy some "country living," Janet relocated to Baker County, Florida, where she took a position at Macclenny Elementary School. She quickly gained a reputation as a teacher who could motivate and discipline difficult-to-reach children.

After she taught four years in the regular education classroom her principal asked Janet if she would consider taking over the learning disabilities class. Agreeing to do this, Janet went back to school. She studied for her master's degree in special education at the University of North Florida and became very interested in evaluation and remediation. Encouraged by her professors, Janet enrolled in the coorperative program between the University of North Florida and University of Florida in school psychology. Janet received her Specialist in Education in April of 1984 and was accepted into the doctoral program in August, 1984.

While working on her doctorate Janet has pursued her career as a school psychologist in Clay County, Florida. In her leisure time Janet enjoys traveling, gardening, sewing, and a variety of crafts. She has just completed building a new home on the Saint John's River at which she is busy using all of her skills.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Janet Larsen, Chairperson
Professor of Counselor Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Robert Drummond
Professor of Counselor Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Catherine Morsink
Professor of Special Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Robert Ziller
Professor of Psychology

This disseration was submitted to the Graduate Faculty of the College of Education and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

August, 1986

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